

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

SBERVEGLIERI et al

Group Art Unit: Not yet assigned

Application No.: New Application

Examiner: Not yet assigned

Filed: April 23, 2004

Attorney Dkt. No.: 58620.00010

For: A THIN SEMICONDUCTOR FILM GAS SENSOR DEVICE

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

April 23, 2004

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the information item(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each item(s) is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the item(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date or the date of filing a CPA, OR (b) before the mailing date of a first Office Action on the merits in the present application, or (c) accompanies a Request for Continued Examination. No certification or fee is required.
- ☐ 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.
- ☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was cited in a communication from a

foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).

☐ b. I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).

☐ c. A check in the amount of \$180.00 in payment of the fee under 37 CFR §1.17(p). Please charge any fee deficiency or credit any overpayment to Counsel's Deposit Account No. 50-2222 as needed to ensure consideration of the disclosed information.

☐ 3. This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Applicant(s) hereby petition(s) that the Information Disclosure Statement be considered. Attached is our check in the amount of \$180.00 in payment of the petition fee under 37 CFR §1.17(p). Please charge any fee deficiency or credit any overpayment to Counsel's Deposit Account No. 50-2222 as needed to ensure consideration of the disclosed information.

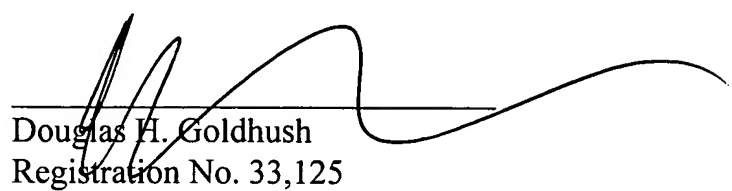
☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).

☐ b. I hereby certify that no item of information in this Information Disclosure Statement was cited in any communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).

☒ 4. The relevance of the reference(s) is discussed in the present specification.

In the event that there are any fees due with respect to the filing of this paper, please charge Counsel's Deposit Account No. 50-2222.

Respectfully submitted,



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Enclosures: PTO-1449 Form; 16 References

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT <i>(Use several sheets if necessary)</i>	ATTY. DOCKET NO.	SERIAL NO.
	58620.00010	New Application
	APPLICANT	
	SBERVEGLIERI et al	
	FILING DATE	GROUP
	April 23, 2004	Not yet assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						

OTHER REFERENCES *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	AL	Sberveglieri et al, "Highly Sensitive and Selective NO _x and NO ₂ Sensor Based on Cd-doped SnO ₂ Thin Films," Sensors and Actuators B. 4, 1991, pages 457-461.
	AM	Sberveglieri et al, "A new technique for the preparation of highly sensitive hydrogen sensors based on SnO ₂ (Bi ₂ O ₃) thin films," Sensors and Actuators B, 5, 1991, pages 253-255.
	AN	Sberveglieri et al, "A new technique for growing porous SnO ₂ (Bi ₂ O ₃) thin films as hydrogen gas sensors," Journal of Materials Science Letters 10, 1991, pages 602-604.
		Sberveglieri et al, "A novel PVD technique for the preparation of SnO ₂ thin films as C ₂ H ₅ OH Sensors," Sensors and Actuators B, 7, 1992, pages 721-726.
		Sberveglieri et al, "R.G.T.O: A New Technique for Preparing SnO ₂ Sputtered Thin Film as Gas Sensors." IEEE, vol. 5, 1991, pages 165-168.
		Sberveglieri, "Classical and novel techniques for the preparation of SnO ₂ thin-film gas sensors", Sensors and Actuators B, 6, 1992, pages 239-247.
		Sberveglieri et al, "Detection of Sub-ppm H ₂ S concentrations by means of SnO ₂ (Pt) thin films, grown by the RGTO technique", Sensors and Actuators B, 15-16, 1993, pages 86-89.
		Sberveglieri, "Novel Trends in the development of semiconducting thin films for gas sensing", Books of Abstracts, International Workshop on New Developments in Semiconducting Gas Sensors, September 13-14, 1993.
		Sberveglieri et al, "WO ₃ sputtered thin films for NO _x monitoring", Abstract Eurosensors VIII, September 25-28, 1994.
		Sberveglieri, "Recent developments in semiconducting thin-film gas sensors", Sensors and Actuators B, 23, 1995, pages 103-109.
		Sberveglieri et al, "A Novel Method for the Preparation of Nanosized TiO ₂ Thin Films" Advanced Materials, 1996, vol. 8, no. 4, pages 334-337.
		Ferroni et al, "Gas-Sensing Applications of W-Ti-O-based nanosized thin films prepared by r.f. reactive sputtering", Sensors and Actuators B, 44, 1997, pages 499-502.
		Faglia et al, "Electrical and structural properties of RGTO-In ₂ O ₃ sensors for ozone", Sensors and Actuators B 57, 1997, pages 188-191
		Comini et al, "Carbon monoxide response of molybdenum oxide thin films deposited by different techniques", Sensors and Actuators B 68, 2000, pages 168-174.
		Comini et al, "Ti-W-O sputtered thin film as n- or p-type gas sensors", Sensors and Actuators B 70, 2000, pages 108-114.
		Comini et al, "Production and characterization of titanium and iron oxide nano-sized thin films", J. Mater. Res., vol. 16, no. 6, June 2001, pages 1559-1564.

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.